CLIPPEDIMAGE= JP02000330118A

PAT-NO: JP02000330118A

DOCUMENT-IDENTIFIER: JP 2000330118 A

TITLE: MULTI-DOMAIN LIQUID CRYSTAL DISPLAY DEVICE WITH

BUMP STRUCTURAL PART

PUBN-DATE: November 30, 2000

INVENTOR-INFORMATION:

NAME COUNTRY

RYU, KOTATSU N/A

ASSIGNEE-INFORMATION:

NAME COUNTRY

IND TECHNOL RES INST N/A

APPL-NO: JP11136243 APPL-DATE: May 17, 1999

 $IMT-CL_{(IPC)}: G02F001/1337; C08G073/10 ; G02F001/1333 ;$

G02F001/13363

ABSTRACT:

PROBLEM TO BE SOLVED: To provide an LCD with a wide visual angle.

SOLUTION: The LCD is equipped with a pair of polarizing plates comprising a

polarizer 100 and an analyzer 102. A pair of light transmissible substrates

104, 108 is formed between the pair of the polarizing plates. A compensator

100 is formed on the analyzer 102. A bump structural part 110 is formed on the

upper side of the substrate. Liquid crystal molecules on the specified bump

structural part are given a specified leaning direction so as to be imparted a

larger pretilt angle. On at least one out of the pair of substrates the $\operatorname{\mathtt{bump}}$

structural part is formed so as to impart the pretilt

angle to the liquid crystal molecules filled between the pair of glass substrate. In this case, inclined surfaces are given to the bump structural part so as to make both edges of the bump structural part have heights different from each other. Alignment layers are formed on the pair of glass substrates and the bump structural part.

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CLIPPEDIMAGE= JP02000206535A

PAT-NO: JP02000006535A

DOCUMENT-IDENTIFIER: JP 2000206535 A

TITLE: TRANSMISSIVE HYBRID ALIGNED LIQUID CRYSTAL

DISPLAY DEVICE

PUBN-DATE: July 28, 2000

INVENTOR-INFORMATION:

NAME COUNTRY

YAMAGUCHI, HIDEMASA N/A

URABE, TETSUO

N/A

ASSIGNEE-INFORMATION:

NAME COUNTRY

SONY CORP N/A

APPL-NO: JP11005593

APPL-DATE: January 12, 1999

INT-CL (IFC): G02F001/1337; G02F001/13363

ABSTRACT:

PROBLEM TO BE SOLVED: To provide a hybrid aligned liquid crystal display device with high response speed of a liquid crystal layer.

SOLUTION: The transmissive hybrid aligned liquid crystal display device

comprises a liquid crystal layer 39 which is arranged between a first and a

second transparent substrate 11a, 11b placed opposite to each other, of which

the liquid crystal molecules on the first transparent substrate 11a side are

almost vertically aligned with respect to the surface of the first transparent

substrate 11a and also of which the liquid crystal molecules on the second

transparent substrate 11b side are aligned almost in

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parallel with the surface of the second transparent substrate 11b and a pair of electrodes 12a, 12b which applies a driving voltage to the liquid crystal layer 39. In this case, the minimum driving voltage is set to be >1 V.

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